## CLAIMS

What is claimed is:

1. An isolated strain of *Lactococcus* species comprising a defective thymidylate synthase gene.

2. The isolated strain of *Lactococcus* species of claim 1, wherein said thymidylate synthase gene has been inactivated by gene disruption.

3. The isolated strain of *Lactococcus* species of claim 1, wherein the *Lactococcus* species is *Lactococcus lactis*.

4. The isolated strain of *Lactococcus* species of claim 2, wherein the *Lactococcus* species is *Lactococcus lactis*.

5. A transformed strain of *Lactococcus* species, said *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid, said transforming plasmid not having an intact thymidylate synthase gene.

6. The transformed strain of *Lactococcus* species of claim 5, further comprising a gene encoding a molecule of interest.

7. The transformed strain of *Lactococcus* species of claim 6, wherein said molecule of interest is Interleukin-10.

8. The transformed strain of *Lactococcus* species of claim 5, wherein said *Lactococcus* species is *Lactococcus lactis*.

9. The transformed strain of *Lactococcus* species of claim 8, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

10. The transformed strain of *Lactococcus* species of claim 9, wherein the molecule of interest is Interleukin-10.

11. A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 6 to the subject.

12. A composition comprising:

a transformed strain of *Lactococcus* species comprising a defective thymidylate synthase gene, and further comprising a transforming plasmid, said transforming plasmid not having an intact thymidylate synthase gene.

13. The composition of claim 12, wherein the *Lactococcus* species further comprises a gene encoding a molecule of interest.

14. The composition of claim 13, wherein said molecule of interest is Interleukin-10.

15. The composition of claim 12, wherein said *Lactococcus* species is *Lactococcus lactis*.

16. The composition of claim 15, wherein the *Lactococcus lactis* comprises a gene encoding a molecule of interest.

17. The composition of claim 16, wherein the molecule of interest is Interleukin-10.

18. A method of treating inflammatory bowel disease in a subject, said method comprising:

administering to the subject a transformed strain of *Lactococcus* species comprising a gene encoding a molecule of interest.

19. The method of claim 18, wherein the molecule of interest is Interleukin-10.

20. A method for delivering a molecule of interest to a subject, said method comprising administering the transformed strain of *Lactococcus* species of claim 9 to the subject.